

REMARKS

The Examiner's Claim Objection Under 37 CFR 1.75 (c)

Claim 4 is objected to under 37 CFR 1.75(c) as being of improper dependent form for failing to limit the subject matter of a previous claim. Claim 4 has been cancelled above.

The Examiner's claim Rejections under 35 USC § 103

The Examiner has rejected Claims 1-20 as being unpatentable over Roe et al. (6,120,783) in view of Gillespie et al. (5,783,503) and Shultz et al. (6,103,647)

With regard to the Roe reference, Applicants do not disagree that Roe discloses the use of barrier cuffs of spunbond polypropylene, but fails to teach the use of a fiber having a denier of less than 1.3.

The Gillespie citation discloses multicomponent thermoplastic continuous filaments and methods of making these filaments. It is crucial to the cited process that the filaments have multiple components because; the separation of the larger filaments into the sub-denier and micro-denier filaments is accomplished without the use of mechanical treatment or high pressure water jets. The filament separation is stated to be accomplished via air pressure or triboelectric energy. The citation states that "The ease with which bicomponent or other multicomponent filament can be formed and then split depends upon several factors, including the miscibility of the components, differences in melting points of the components, crystallization properties, viscosity, conductivity and the ability to develop a triboelectric (sic) charge." (Column 4, lines 54-59) However, nowhere in the citation is there a clear explanation of which melting points, crystallization properties, viscosities etc., should be chosen. A list of "suitable polymers for practice", appears at column 5, lines 4-16, but the list includes many generally utilized polymers.

Gillespie discloses that the filaments can be utilized in diaper leg cuffs and that "Spunbonded webs made from splittable microfilaments of the invention or laminates of these spunbonded webs combined with meltblown fiber webs can be expected to produce fabrics with superior barrier compared to current spunbonded webs and laminates with meltblown." (Column 7, lines 16-20.)

However, as discussed in prior responses, there are several factors regarding Gillespie, which must be taken into account. First, Gillespie does not disclose the **metallocene** polypropylene fibers required by the instant claims, as amended. The disclosure of Gillespie is not enabling, with regard to the choice of polymer for producing a nonwoven for leg cuff

material. As is known, metallocene catalysts provide polymers with narrow molecular weight distributions. This narrow distribution results in melt rheology allowing small diameter spinnerettes for fiber extrusion. There is nothing in Gillespie that would lead one of skill in the art to such polymers. Gillespie merely teaches a melt temperature that is high enough for extrusion through a "typical" spunbonding spinnerette orifice diameter, while not being too high to damage the lower melting polymer. Such teaching clearly fails to direct one of ordinary skill to metallocene polymers. If one of skill in the art were **given** Roe and Gillespie and instructed to produce absorbent articles with lotion on the cuffs, the cuffs might possibly be spunbonded microfiber webs. However, there is nothing in Gillespie to direct the artisan to the metallocene polypropylene fibers of the instant invention nor which would motivate one of skill in the art to choose such fibers. The absorbent articles, therefore would not be those of the instant claims, as amended, and the instant invention is not obvious in light of the citations.

Finally, while the instant application seeks to eliminate meltblown fibers or to include them at low levels in a spunbonded layer, **Gillespie still utilizes meltblown fibers as a separate layer.**

In addition, the Examiner rejects the claims under 35 U.S.C. 103(a) as being unpatentable over Roe in view of Gillespie and further in view of Shultz et al. (6,103,647).

Shultz requires a laminate having a hydrohead of at least 10 millibars and the presence of **at least one layer of meltblown elastic olefin polymer fibers** thermally bonded on at least one side with a layer of soft fibers of a nonelastic material greater than 7 microns in average diameter. The laminate has a drape stiffness less than half of a similar fabric having a layer of meltblown non-elastic fibers in place of the layer of meltblown elastic fibers.

The instant claims have been amended to clarify that the cuff comprises a nonwoven consisting essentially of spunbonded metallocene polypropylene. As Shultz requires that the fabric produced be "a laminate having at least one layer of **meltblown elastic** fibers bonded on either side with a layer of soft non-elastic fibers...", this amendment should remove Shultz as a reference against the instant application. This is due to the fact that, even if the Shultz metallocene polymers were spunbonded they would still be a part of a three layer laminate containing amounts of meltblown material which "materially affect the basic and novel characteristic(s) of the claimed invention" (MPEP 2111.03). There is no motivation

provided by Shultz to produce a cuff comprising a nonwoven consisting essentially of only spunbonded material as is required by the instant claims.

The goal of the instant invention is to produce a nonwoven, which has no, **or a minimum level of meltblown fibers**. The instant specification at page 19, lines 9-15, states: "For example, the preferred SS metallocene polypropylene barrier cuff material causes less red marking than currently used spunbonded-meltblown-spunbonded (SMS) leg materials, using polypropylene materials. This is a surprising discovery, as it was believed that the meltblown layer of the SMS structure was necessary to provide for barrier properties to prevent leakage." The citation, therefore, teaches away from the instant structure and a reading of Schultz, whether it includes the possibility of using spunbonded metallocene polymer somewhere in the structure or not, certainly would not lead one of skill in the art to the instant structure.

The Examiner's Second Rejection under 35 USC 103(a)

As with Roe, Lawson does not disclose the use of microfibers in barrier cuffs. Therefore, the same remarks apply as those directed to Roe/Gillespie/Shultz.

CONCLUSION

In summary,

- a) Neither Roe nor Lawson disclose the use of fibers having a denier of less than 1.3,
- b) Gillespie does not disclose metallocene polypropylene spunbond fibers and requires the use of a meltblown layer,
- c) Shultz requires the use of a layer of meltblown material.

Given these differences and examining them in light of the requirements for obviousness, there is no suggestion in the references to modify the cited articles or to combine the teachings of the references. Even if one picked and chose those elements of the citations, which correlate to those of the instant application, the structures made would not be those of the instant articles. Lastly, the citations do not teach or suggest all the claim limitations. If one of skill were to utilize the microfibers of Gillespie in the barrier cuffs of Roe **the cuffs would include a meltblown layer**. If one of skill were to utilize the metallocene polymers of Shultz in the microfibers of Gillespie to produce the barrier cuffs of Roe, **the cuffs would still include a meltblown layer**. It is only in light of the instant disclosure itself that the instant structures are obvious.

For the foregoing reasons, Applicants respectfully submit that the applied references and reference combinations do not disclose or render obvious claims 1-3 and 5-20. In response to the 37 CFR 175 (c) objection, claim 4 has been cancelled.

Accordingly, favorable reconsideration of claims 1-3 and 5-20 is earnestly solicited in the form of a Notice of Allowance.

Should any issues impeding continuing examination of this Application remain, the Examiner is encouraged to contact the undersigned by telephone at the earliest possible date to achieve a timely resolution.

Respectfully submitted

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